Environment

Pursuant to NRS 345.070 (1.d) & (3.f)

Before each session of the Nevada Legislature NRS 345.070 requires the Department of Administration to publish a Biennial Report for the executive branch of state government. The report contains the most recent State of the State message delivered by the governor, an organizational chart of state government; and separate sections describing each state department and other selected agencies of the executive branch.

The report also contains a description of recent trends in the population, economy and environment of this state. This document fulfill the requirement concerning the environment.

The Environment

How we manage our water and our other natural resources impacts our quality of life and defines the limits of our population growth and our economic security. Emerging environmental issues such as the need for restoration of land damaged by fire, impacts of invasive species such as noxious weeds, coupled with the issues such as global climatic change will likely have significant impacts upon Nevada's ecology and natural resources.

Water

Few concerns are more crucial to the well-being of Nevadans and to the future of the state than our water supply. The state has very limited water resources. Nevada's average annual rainfall is 9 inches, making it the most arid state in the union. Historically, the State has attempted to stretch its limited water resources by diligently negotiating with the federal government and other western states for water rights, by constructing reservoirs and dams, by re-using wastewater effluent and by carefully allocating surface and ground water rights. The disparity between surface water availability and needs during seasonal periods means that water storage and the ability to control the timing of water deliveries continues to be a critical issue. In addition, residents of the state's two urban counties continue to experience conflicts among urban and agriculture interests as well as indigenous Indian tribes over the allocation of water. (Clark county in Southern Nevada [Las Vegas] depends on water from the Colorado River allotment, whereas Washoe County in Northern Nevada [Reno/Carson] is depended on the winter snow watershed of the Sierra Nevada Mountains).

In Washoe county consistent population growth along with the 1987-1994 drought resulted in policy makers looking carefully at competing demands, devising innovative solutions and encouraging increased conservation efforts to resolve over 100 years of water

conflict. In Southern Nevada, extreme population growth will cause the region to use its full allocation of Colorado River water by about 2008. Of note, over the last sixty years excess withdrawals of groundwater from the Las Vegas basin have led to ground subsidence in different areas of the valley; as a result, substantial restrictions have been imposed on the drilling of wells in the basin over the last several years.

Across the state efforts are underway to develop additional water supplies and decrease demand, but these efforts will take time before they yield results. Clark and Washoe counties have been examining water importation and groundwater recharge as sources of future water supply. The Colorado River Commission and the Southern Nevada Water Authority are also negotiating various water storage options with other states in the Colorado River watershed.

In the north the passage of Public Law 101-618 has resulted in a negotiated settlement designed to protect upstream and downstream water users and enhance conservation of natural resources on the Truckee and Carson rivers. When finalized the agreement will set in motion proposals to optimize Truckee River upstream storage as well as acquire and convert agricultural water rights to municipal and environmental uses. These actions will support endangered species recovery program at Pyramid Lake. The agreement will also finalize the interstate compact between Nevada and California.

The growth of Nevada's gold mining industry has impacted the water resources of Eastern Nevada. At least ten major mining companies have either dug or are planning to mine below the water table. The mining process entails "dewatering" to gain access to the minerals. Thousands of acre feet of water are produced that must be reinjected, reused or discharged to surface streams in northeastern Nevada. The discharged water is ultimately re-used by wildlife and agriculture and in the future may be used for other beneficial uses. Studies of the cumulative effects of mine dewatering on the hydrology of the region are underway.

In reference to lakes, Walker Lake will require substantial effort to ensure the lake is able to sustain beneficial uses under conditions of intensive allocation from the Walker River. Significant community interest has been expressed regarding the formulation of a strategy to save the lake from extinction.

Concerning watershed management, evolving natural resource management methods that focuses on comprehensive water planning and management efforts are critical in many of

the State's drainage basin. This effort will be important to protect the quantity and quality of Nevada's waters from detrimental impacts.

As might be expected, groundwater resources in parts of the state are being threatened by suburban expansion. The proliferation of subdivisions served by septic systems has resulted in groundwater contamination in some areas. Nitrate contamination of the groundwater represents a significant threat to public health, while leaking underground storage tanks also represent a threat to municipal and domestic water supplies. The national deadline of December 1998 to ensure that underground storage tanks are no longer leaking has been achieved in Nevada. Leaking underground storage tank cleanup efforts are expected to significantly diminish by the beginning of the next decade.

The first draft of the comprehensive state water resource management plan has been completed. This plan addresses the issues of water supply, water quality, habitat protection and watershed planning for floods, droughts and conservation. The goal of this effort is to provide a road map for determining and managing Nevada's future water use and to address the most significant water related issues facing the state.

Land Use and Wildlife:

Healthy and diverse wildlife populations, forests, and rangelands are also important to the quality of life in Nevada. Diminished animal and plant species often serve as indicators of declining environmental quality. Species listed as threatened or endangered under the Endangered Species Act, such as cui-ui fish in Pyramid Lake and the desert tortoise in the Las Vegas Valley, have had controversial implications for the state in terms of diverted water resources in the Truckee Meadows and Lahontan Valley and restricted land use in Southern Nevada. Potentially threatened species such as the Sage Grouse is also driving early intervention to develop solutions to protect the species, yet provide for multiple use of Nevada's rangeland resources. In responding to this issue the Governor has established a Sage Grouse Conservation Team that is endeavoring to develop local solutions. Competition for resources on Nevada's rangelands remains intense between mining development, agricultural use, wildlife interests and wild horses. With the issuance of a Wild Horse Plan, the State has re-defined it's role in the management and preservation of wild horses on Nevada's federal lands. This, in conjunction with the Bureau of Land Management's revitalized effort at wild horse management, has created new solutions to address the over populations of wild horses in Nevada. New focus on assessing AML's (Appropriate Management Levels) for herd management areas may will bring to bear a powerful tool to ensure that Nevada's rangeland

and woodlands remains healthy. As well, State efforts in managing Elk herds in Nevada will lend support to maintaining sustainable long term rangeland use through large species management programs.

Nevada is among the top ten states having the greatest number of sensitive species. Recent conservation planning efforts, however have precluded the need to list several additional species. Statewide biodiversity rankings set priorities for conservation action that have been incorporated into multiple species planning in Clark County, and various management plans across Nevada. The invasion and spread of noxious weeds and pests throughout Nevada is also gaining increased attention as a growing and potentially devastating source of environmental and economic losses to the state. The public and private sectors are engaged in an intensive partnership to halt the spread of noxious weeds and to concurrently restore the ecology of the Great Basin. As part of the effort of restoration, significant focus is being placed on developing a long term strategy to diminish the impact of range and forest fires that have enveloped the state the last decade. The BLM's has sponsored the Great Basin Restoration Initiative as a unique focal point to control noxious weeds associated with repetitive rangeland fires.

The continued decline of the health of Nevada's forest resources, particularly in the Lake Tahoe Basin and on Mount Charleston has resulted in significant concern. Through out Lake Tahoe the forest is characterized by standing dead and down trees and a bark beetle infestation that continues to attack healthy trees. In the south both Kyle and Lee canyons on Mount Charleston have similar situations, which greatly increase the potential for catastrophic wildfires. Should a wildfire occur, the soil erosion impacts to water quality in Lake Tahoe and Mount Charleston would be devastating for many decades. The 1997 Presidential Forum and numerous federal, state and local partnerships such as Tahoe ReGreen are working toward solutions to our forest health issues. The commitment by the Federal government in late 2000 has paved the way for long term investment in the environmental health of the Lake Tahoe Basin. The planned cumulative investment at Lake Tahoe by federal, state and local governments is anticipated to exceed $ 900 million in the next decade.

Air

Another barometer of the health of the environment is our air quality. The state's two major urban areas have made great strides in improving air quality over the past decade despite continued growth. Washoe County has returned to attainment for ozone; the number of non-healthful days has dropped to zero for the past three years and the last particulate violation

occurred in 1993. Although Clark County is still in non-attainment for both particulates and carbon monoxide, the number of exceedances and concentrations are decreasing. Increased emphasis has been placed on reorganizing the Clark County air quality program to be more efficient and responsive.

Automobile emissions are the major source of air pollution in Nevada's urban areas. New federal emission standards for vehicles, use of oxygenated fuel and alternatively-fueled vehicles which produce less carbon monoxide than gasoline-powered vehicles, and the implementation of inspection and maintenance programs in the two urban counties have all contributed to improved air quality.

Increased use of prescribed fire as a land management tool and its impact on the state's ability to meet the new national ambient air quality standards for fine particulates and regional haze has recently emerged as an important issue in Nevada. A smoke management program is being developed to address these concerns and mitigate smoke impacts.

Nuclear and Other Hazardous Waste:

The state must also continue to be vigilant in guarding against the dangers of indiscriminate industrial waste disposal and careless industrial accidents involving hazardous chemicals. As the state grows and continues to encourage new industries to locate in Nevada, environmental concerns must not be compromised. The state has embarked upon a program of pollution prevention. These new initiatives encourage waste reduction through hazardous waste minimization and by requiring recycling of municipal waste. The state has entered a new era of reducing waste pollution by encouraging industry to think about better ways to produce their products. The continuing expansion of light to heavy industries throughout Nevada will place competition on available land, energy, water and air resources. The concentration of business in industrial parks provides a unique opportunity to properly regulate the consumption of natural resources yet meet the State's objective of industrial diversification. Key areas in the state where rapid industrial expansion is occurring has focused the attention of environmental regulators and the development community to be proactive in managing finite resources such as air quality.

While Nevada continues to make strides in meeting national environmental standards, the state must be aware of its position as an existing and enhanced low-level radioactive waste disposal site . Although the commercial low-level disposal site at Beatty has been closed, the Nevada Test Site is still being used by the U.S. Department of Energy (U.S. DOE) as a major

national disposal site for low-level radioactive defense waste . While the Beatty site received some four million cubic feet of low-level radioactive waste from the commercial sector (e.g., nuclear power plants, labs and medical providers), the U.S DOE has disposed of over 20 million cubic feet of low-level defense waste at the Nevada Test Site. Low-level defense waste is generated from historic nuclear weapon production activities and cleanup of nuclear bomb manufacturing facilities located in ten different states.

The U.S. DOE is planning to significantly expand its waste disposal activities at the Nevada Test Site. Along with low-level defense waste, the test site is being considered for the disposal of thousands of cubic feet of mixed waste, which is defined as hazardous and low-level waste. The U.S. DOE's program to continue as well as expand low level radioactive waste disposal at the Nevada Test Site will cause meaningful impacts on state-funded regulatory, emergency management, and transportation oversight programs. Risks to Nevada's tourism-based economy, caused by negative images associated with nuclear waste along with the risks of a major transportation accident, are issues of prime concern.

Federal efforts continue to push the Yucca Mountain project in Nevada. Yucca Mountain is being studied as a potential dump site for 70,000 tons of commercial high-level nuclear waste and spent reactor fuel. The state has continued to battle the project noting uncertainties about groundwater, volcanic activity near the site, and recent earthquakes. The federal repository must be capable of containing high-level radioactive waste for at least 10,000 years.

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